AMENDMENTS TO THE CLAIMS:

This listing of the pending claims will replace all prior versions and listings of claims in this application:

1-23. (Canceled).

24. (Currently Amended) A method for controlling a hydraulic mount between an object and a base, the object having a bounce resonance frequency, the method comprising:

calibrating at least one tunable parameter of a control system of the mount based on the bounce resonance frequency of the object;

generating a first acceleration signal indicative of an acceleration of the object;

generating a second acceleration signal indicative of an acceleration of the base;

determining a relative acceleration across the mount based on the first and second acceleration signals;

generating a control signal responsive to the determined relative acceleration based on the at least one tunable parameter; and

controlling the flow of MR mount fluid in the mount responsive to the control signal ~~such that maximum damping of the~~ to minimize the relative acceleration across the mount ~~occurs at~~ over a predetermined band of frequencies.

25. (Previously Presented) The method of claim 24 wherein the predetermined band of frequencies occurs at and around the bounce resonance frequency of the object.

26. (Previously Presented) The method of claim 25 wherein calibrating at least one tunable parameter comprises tuning an objective function obtained by a sensitivity function.

27. (Previously Presented) The method of claim 26 wherein calibrating at least one tunable parameter comprises tuning a weighting function.

28. (Previously Presented) The method of claim 27 wherein the weighting function is limited to the bounce resonance frequency.

29. (Previously Presented) The method of claim 28 wherein calibrating at least one tunable parameter comprises tuning an associated scalable factor.

30. (Previously Presented) The method of claim 29 wherein the associated scalable factor is used to increase and decrease the magnitude of the weighting function.

31-37. (Cancelled).

38. (Currently Amended) A system for controlling a hydraulic mount between an object and a base, the object having a bounce resonance frequency, the system comprising:

means for modifying at least one tunable parameter of a control system of the mount based on the bounce resonance frequency of the object;

means for generating a first acceleration signal indicative of an acceleration of said object;

means for generating a second acceleration signal indicative of an acceleration of said base;

means for determining a relative acceleration across the mount based on the first and second acceleration signals;

means for generating a control signal responsive to the relative acceleration based on the at least one tunable parameter; and

means for controlling the flow of MR fluid in the mount responsive to the control signal such that maximum damping of the to minimize the relative acceleration across the mount occurs at over a predetermined band of frequencies.

39. (Previously Presented) The system of claim 38 wherein the predetermined band of frequencies occurs at and around the bounce resonance frequency of the object.

40. (Previously Presented) The system of claim 39 wherein the means for tuning at least one tunable parameter comprises an objective function obtained by a sensitivity function.

41. (Previously Presented) The system of claim 40 wherein the means for tuning at least one tunable parameter comprises a weighting function.

42. (Previously Presented) The system of claim 41 wherein the weighting function is based on the bounce resonance frequency.

43. (Previously Presented) The system of claim 42 wherein the means for tuning at least one tunable parameter comprises an associated scalable factor.

44. (Previously Presented) The system of claim 43 where the associated scalable factor is used to increase and decrease the magnitude of the weighting function.

45. (Currently Amended) A control system for a hydraulic mount positioned between a vibrating object and a base, said vibrating object having a bounce resonance frequency, the system comprising:

means for generating a first acceleration signal indicative of an acceleration of said object;

means for generating a second acceleration signal indicative of an acceleration of said base;

means for determining a relative acceleration across the mount based on the first and second acceleration signals;

means for generating a control signal corresponding to the relative acceleration;

means for controlling the flow of MR fluid in the mount responsive to the control signal;

means for tuning the control system ~~such that maximum damping of the~~ to minimize the relative acceleration across the mount ~~occurs~~ at and around the bounce resonance frequency of the object.